

REMARKS

New corrected drawings are submitted herewith as suggested by the examiner.

FIG. 1 has been corrected to include the label "100" as suggested by the examiner to overcome the objection.

FIG. 5 has been corrected to include an exit line as suggested by the examiner to overcome the objection.

The multiplexer and "TEST_OUT" reference numerals in the specification have been corrected as suggested by the examiner to overcome the objection.

Claims 1 and 21 have been amended as suggested by the examiner to satisfy the formal objections to the claim language.

Claims 3 and 17 have been amended to overcome the rejection under 35 U.S.C. § 112. Support for the amendment to Claims 3 and 17 may be found in FIG. 1.

Claims 16 and 17 have been amended to correct the reference to the base claim from Claim 13 to Claim 15.

Claims 1, 3, 15 and 17 have been amended to more clearly define that which Applicant regards as the invention. Support for the amendment to Claims 1, 3, 15 and 17 may be found in the specification on page 5, lines 7-12.

Claim 10 has been amended to more clearly define that which Applicant regards as the invention. Support for the amendment to Claim 10 may be found in the specification on page 8, lines 3-10.

New Claim 22 has been added. Support for new Claim 22 may be found in the specification on page 8, lines 3-10.

Applicant acknowledges with appreciation the notice of allowable subject matter of Claims 4, 5, 19 and 20, and Claims 4, 5, 19 and 20 have been amended as suggested by the

examiner to overcome the objection of being dependent on a rejected claim.

Claims 1-22 remain pending in the application.

By way of this response, Applicant has made a diligent effort to place the claims in condition for allowance. However, should there remain any outstanding issues that require adverse action, it is respectfully requested that the examiner telephone Leo J. Peters at (408)433-4578 so that such issues may be resolved as expeditiously as possible.

Response to the rejection under 35 U.S.C. § 102

Claims 1, 15 and 2, 16 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Bodoni et al., "An Effective Distributed BIST Architecture for RAMs" (*Bodoni*). The amendment to Claims 1 and 15 overcomes the rejection by reciting a controller coupled to the collar for generating the switching signal, a test vector, and control signals on only seven control lines between the controller and the collar. On page 122, *Bodoni* discloses five control lines between the controller and the collar. Because *Bodoni* lacks the claimed seven control lines between the controller and the collar, Applicant respectfully requests that the rejection of Claims 1, 15 and 2, 16 under 35 U.S.C. § 102(b) be withdrawn.

Response to the rejection under 35 U.S.C. § 103

Claims 3, 6-9, 11-14, 17, 18 and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bodoni et al., "An Effective Distributed BIST Architecture for RAMs" (*Bodoni*), and further in view of Kraus et al., U.S. Patent No.

6,587,979 (*Kraus*). The amendment to Claims 1, 3, 15 and 17 overcomes the rejection as follows.

Bodoni lacks the claimed seven control lines as explained above. According to the mapping of the controller signals in *Kraus* to the claimed control lines presented in section 9, page 6 et seq. of the Office Action, the claimed "CLEAR" signal, the claimed "TEST_ENABLE" signal, and the claimed "WRITE_ENABLE" signal are all multiplexed on a single control line in FIG. 16 of *Kraus* as (MODE, FORCE, CNT, RESET). Because *Kraus* does not teach or suggest separate control lines for each of the "CLEAR" signal, the "TEST_ENABLE" signal, and the "WRITE_ENABLE" signal as recited in Claim 3, the modification to *Bodoni* by *Kraus* proposed by the rejection fails to arrive at the claimed invention. Because the modification to *Bodoni* by *Kraus* proposed by the rejection fails to arrive at the claimed invention, Applicant respectfully requests that the rejection of Claim 3 be withdrawn.

Because Claims 6-9, 11-14, 17, 18 and 21 include the limitation of separate control lines for each of the "CLEAR" signal, the "TEST ENABLE" signal, and the "WRITE ENABLE" signal as recited in Claim 3, Applicant respectfully requests that the rejection of Claims 6-9, 11-14, 17, 18 and 21 be withdrawn.

Further, the multiplexing of controller signals disclosed in *Kraus* implies that additional demultiplexing logic is required in the collar for each memory device. The additional demultiplexing logic is advantageously avoided in the claimed invention by using separate control lines for each of the controller signals.

Claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Bodoni* and in view of *Kraus* and

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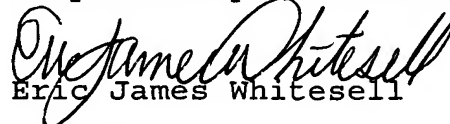
further in view of Kornachuk et al., U.S. Patent No. 6,044,481 (Kornachuk). The amendment to Claim 10 overcomes the rejection as follows.

The "EOAD" signal in *Bodoni* cited by the rejection on page 121, column 2 is asserted "when the address generator reaches the end of its [the address generator's] address space". In contrast to *Bodoni*, the claimed memory enable signal is negated for addresses outside the address range of the memory device, not the address space of the address generator. Because *Bodoni* does not teach or suggest a memory enable signal that is true for addresses within an address range of the memory device and that is false for addresses outside the address range of the memory device as recited in Claim 10, the modification of *Bodoni* by Kornachuk proposed by the rejection fails to arrive at the claimed invention. Because the modification to *Bodoni* by Kornachuk proposed by the rejection fails to arrive at the claimed invention, Applicant respectfully requests that the rejection of Claim 10 be withdrawn.

Applicant respectfully requests examination and favorable reconsideration of pending Claims 1-22.

The fee for (6) independent claims minus (3) prepaid independent claims and for (22) total claims minus (21) prepaid total claims is attached to this amendment.

Respectfully submitted,


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encl:

formal drawings for FIGS. 1-8

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